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## Book reviews

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## Book reviews

**Barina Z., Mullaj A., Pifkó D., Somogyi G., Meco M. & Rakaj M.: Distribution atlas of vascular plants in Albania.** – Budapest: Hungarian Natural History Museum, 2017. – ISBN 978-963-9877-29-0. – 21.4 × 30.2 cm, 492 pp., 8 b/w figures, several hundred b/w distribution maps, English; hardback. – Price: ± EUR 82.

**Vangjeli J.: Flora albanica atlas. Volume 1. Pteridophyta–Apiaceae.** – Schmitt-Oberreifenberg: Koeltz Botanical Books, 2017. – ISBN 978-3-946583-08-0. – 21.5 × 28.6 cm, x + 933 pp., c. 1700 2-colour distribution maps, c. 1700 colour photos, English; hardback. – Price: EUR 244. – Available at <http://www.koeltz.com>

## Introduction

Lucky Albania! After the appearance of a modern pictorial excursion flora (Pils 2016), the country is now equipped with two basic works on the chorology of vascular plants in its territory: the *Distribution atlas of vascular plants in Albania* by Barina & al. (2017) and the *Flora albanica atlas. Vol. 1 Pteridophyta–Apiaceae* by Vangjeli (2017), hereafter referred to as “**B**” and “**V**”, respectively. To quote from the prefaces of both works, “this is a first and major step towards deep and thorough knowledge on the Albanian flora” (**B**: 7) and “will contribute to further studies” in several fields and applications of Albanian botany (**V**: I). Indeed, because of the restricted access to Albania, botanists from different countries previously visited at best only some parts of the country, with Friedrich Markgraf’s *Pflanzengeographie von Albanien* (Markgraf 1927, 1932) an early exception. Among Albanian botanists there was no tradition for providing distribution records, and all their synthetic works (Floras and Florulas) completely lack any analysing or summarising distributional data.

Situated on the northern coast of the Mediterranean Sea, Albania generally underlies a Mediterranean type winter-rainfall climate with dry summers, but the strong geomorphological relief from a coastal plain over colline-montane foothills to an interior of high mountains causes many regional and local variants of microclimate, including the climatic influence of large inland lakes and of active glaciers on shaded northern slopes at high altitudes. Although a small country (about the surface of Belgium), Albania hosts a wealth of geological substrata, ranging from Palaeozoic to Quaternary in age and com-

prising plutonic to sedimentary, magmatic and metamorphic types of bedrock, among them ultrabasic ophiolites of considerable extent. More than 70% of the surface is covered by up to more than 2500 m high fold mountain ranges (highest peak Mt Korab, 2764 m) along the contact zone of the African and Eurasian Plates, namely the Adriatic Subplate colliding with the Precambrian Serbian-Macedonian Massif. As a consequence, the vegetation cover and phytodiversity of the country is highly structured in a system of altitudinal belts from sublittoral to nival ecosystems, with a natural tree-line varying between 1400 and 1900 m. Numerous arctic-alpine, boreal and nemoral species have their (regional or even European) southern distribution limit in Albania. Likewise, other phytogeographical elements have their (regional) northern-, eastern- or westernmost occurrences there, making Albania one of the floristically richest areas in Europe, especially with respect to its limited surface area. In Albania, native *Pancratium maritimum* and native *Soldanella alpina*, native *Sambucus racemosa* and native *Euphorbia dendroides* co-occur in a beeline-distance of c. 60 km.

## General parts

The introduction into geographical, ecological, topographical and historical facts on the country and its flora is scarce in **V** but much more elaborated in **B**. **V** only mentions four vegetation zones with shifting altitudinal ranges from N to S Albania, gives a long list of 235 partly overlapping or redundant habitat types coded with numbers and applied to the text paragraphs on mapped species, and informs about combined growth and life forms (sec. Raunkiaer) and on chorological types derived from total ranges of taxa. The official categories and criteria of the IUCN Red list are given in detail, and an administrative map exhibits names of districts, furnished with an (oddly deficient) matrix of mapping squares. **B** is much more commendable in this respect. Geomorphological and biogeographical chapters inform about the ecological essentials of the country for its vascular plants, including a (simplified) geological map and – very deserving – a cadastral register of individual mountains, massifs and peaks in Albania, visually cross-referenced in an outline map (after the paradigm of Strid 1986: xvii–xxvii) and combined with a thesaurus of toponyms, for the Albanian language splits up into a number of dialects and was

even, prior to 1908, conveyed in different alphabets, and geographical names on herbarium labels and itineraries were frequently written in foreign languages, recorded by hearing and then translated or transcribed, resulting in many additional locality names. A very valuable, four-page glossary of these and their deviating spellings, wisely co-authored by an Albanian and a non-Albanian member of the team of authors (**B**: 13–17), helps the user to overcome these difficulties without bothersome time loss. Guidelines for unifying deviating toponyms of publications and herbarium labels are given. Worth reading is an elaborate chapter on the botanical exploration history of Albania (**B**: 23–46), starting from Grisebach's first visit in 1839 and very interestingly elucidating the times between 1945 and 1989, when Albania was more or less secluded so that international scientific cooperation was strongly limited. An exhaustive list of botanical literature on Albania with roughly 200 entries is added. In contrast, **V**'s list of references incorporates no more than c. 60 titles.

### Basic mapping sources

The backbone of **B**'s atlas is made up by c. 50 000 georeferenced records collected from 2004 to 2016, 16 500 thereof vouchered by herbarium material stored in the Hungarian Natural History Museum (BP, with a limited number of duplicates at C, TIR, W and ZA). These records are amended with additional historical herbarium data and c. 29 000 critically evaluated previous literature records. **V** qualifies his data as being “derived from plant specimens of the National Herbarium (TIR) and from c. 120.000 entries in a database which includes data from foreign as well as native literature.”

### Coverage

**V** covers vascular cryptogams, gymnosperms, and for angiosperms all families treated in volumes 1 and 2 of *Flora europaea* (Tutin & al. 1968, 1993), except *Buxaceae* which, although occurring with one species (*Buxus sempervirens* L.) in Albania (Euro+Med 2006+), have been omitted in the present volume (probably accidentally, anyway to be delivered in a subsequent volume). The sequence of families and genera is not alphabetical but also not identical with the sequence in *Flora europaea*, so that the terminal alphabetical index of the volume has always to be consulted for finding a particular taxon. Many exclusively cultivated ornamentals and economic plants are also included (at random?), but the criteria for this practice are not given. **B** covers all the vascular plant families of Albania in one volume, i.e. all species found to be native or naturalized in Albania while “non-vouchered records” (a category subject to speculation and left unexplained), infraspecific taxa with insufficient (i.e. not appropriately mappable) distribution data in the country and casual aliens (i.e.

garden escapes without a meaningful distribution) are generally omitted.

### Maps

The basic greyscale relief maps in **B**'s atlas (uniformly eight per page) show the distribution of a taxon with solid dots. In some cases groups are jointly displayed in single maps or well-distinguished subspecies in separate maps. Alternative symbols (squares, open circles, question marks, etc.) refer to cultivated, unconfirmed, questionable, erroneous or extinct occurrences, respectively. The maps are accompanied by a short text with basic information on regional distribution pattern, frequency, habitat and substrate preference and altitudinal range of the mapped taxon. Unfortunately, a note on the chorological type or a when a taxon reaches the limit of its global range in Albania is not presented but would be highly desirable (exception: *Tanacetum cinerariifolium*, **B**: 145). In contrast, **V**'s maps are usually two (sometimes one) per page and rather variable in size and design. The matrix of the black and white empty base map exhibits a grid of 544 squares with district borders underneath. Three styles of mapping coexist: (1) grid maps (one dot per mapping square), (2) district maps (one dot per administration unit) and (3) free dot maps based on individually georeferenced localities. Only one symbol applies, a solid black dot, but its size may (randomly) vary, also its coloration (sometimes not black but grey), these differences not connected to different qualities of status or the like. This perplexes the user, suggesting a minor value of **V**'s mapping results. This impression is aggravated by strange maps where the whole territory of Albania is simply completely square-dotted (e.g., for *Helleborus odoratus*, *Hypericum perforatum*, *Pteridium aquilinum*) but not so in *Daucus carota* (**V**: 867) where one could expect a similar total mapping but gets no more than 6 dots for the whole country. On the same page one can also admire a locality far inland in the Thate Mts at 400–1200 m for the coastal ammophilous *Pseudorhiza pumila*, certainly an error. A similar error exhibits the map of *Crithmum maritimum*, with four dots in the high mountain interior of the country, in contrast to the eight coastal localities specified in the accompanying text, see **V**: 826.

A most troublesome endeavour is the attempt to compare the sometimes much diverging mapping results of both works and try to decide who is right and who is wrong. The user of the atlases gets into the unpleasant, in fact unaccomplishable role of acting as a referee as exemplified by Table 1. On a first glimpse, the general impression suggests itself that in **V** the number of dots (= mapped localities) is often low and appears potentially deficient with respect to publicly available information, while in **B** the number and frequency of dots (= mapped localities) in most cases likely depicts reliable floristic knowledge, substantiated by candid

Table 1. Randomly selected comparison of mapping results in both works (extension desirable, but beyond the scope of the present review).

| Taxon / Map<br>(in alphabetical order) | Vangjeli 2017                                                                                                                                             | Barina & al. 2017                                                         | Reviewer's comments                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Anogramma leptophylla</i>           | A single locality, implausibly at 1100 m in the interior and possibly erroneous.                                                                          | Many feasible dots along the Mediterranean coast below 700 m.             | <b>B</b> 's result supersedes <b>V</b> 's.                                                                                                                                                                                                                                                                                                       |
| <i>Biscutella laevigata</i>            | A few dots given for localities at 1500–1800 m in mountains of the interior, one coastal locality certainly erroneous and referring to <i>B. didyma</i> . | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.  | Indications contradicting. <b>B</b> 's rejection is based on re-examination of a single specimen in TIR (Barina & al. 2013: 170); possibly <b>V</b> 's records are more recent and material was not seen by <b>B</b> . Re-examination of herbarium material and/or populations in the field is required to prove presence or absence in Albania. |
| <i>Ephedra distachya</i>               | Inland localities preponderate coastal occurrences, based on Vangjeli & al. (1995).                                                                       | Inland reports revealed as erroneous, referring to <i>E. foeminea</i> .   | <b>B</b> 's critical revision of the Albanian Red Data Book of Plants (Vangjeli & al. 1995) rejects <b>V</b> 's mis-mapped dots, thus making both mappings eventually concordant.                                                                                                                                                                |
| <i>Isoetes histrix</i>                 | A single dot in the NE at c. 2000 m.                                                                                                                      | A single dot in the SW at sea-level.                                      | Maps seemingly contradicting. However, records may actually refer to <i>I. phrygia</i> and <i>I. gymnocarpa</i> , respectively (see determination key provided by Troia & Greuter 2015: 400). Identity of the mapped taxon/taxa and distribution in Albania unsettled so far.                                                                    |
| <i>Kitabela vitifolia</i>              | 2 dots in C Albania.                                                                                                                                      | 2 dots in C Albania.                                                      | <b>V</b> 's and <b>B</b> 's result identical. Distribution of taxon and caption information beautifully congruent in both works.                                                                                                                                                                                                                 |
| <i>Marsilea quadrifolia</i>            | Mapped at both Lakes Shkodra and Small Prespa.                                                                                                            | Said to be extinct at Lake Shkodra, while a Prespa locality is not given. | Accordingly, extinction in Albania not definitively proved.                                                                                                                                                                                                                                                                                      |
| <i>Osmunda regalis</i>                 | 2 localities mapped.                                                                                                                                      | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.  | Given for Albania in Euro+Med (2006+), insofar congruent with <b>V</b> 's result; <b>B</b> 's doubts (definitely erroneous, or merely not seen by him?) remain unsubstantiated so far.                                                                                                                                                           |
| <i>Potentilla micrantha</i>            | Not mapped, also name not indexed; taxon simply omitted.                                                                                                  | Mapped with c. 80 dots as frequent throughout the entire territory.       | <b>B</b> 's result supersedes <b>V</b> 's omission.                                                                                                                                                                                                                                                                                              |
| <i>Potentilla multifida</i>            | 2 localities mapped at colline-submontane altitudes, but in caption species is qualified as arctic-alpine.                                                | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.  | A single old record of the 1920s deleted from the Albanian flora on comprehensible grounds (Barina & al. 2013: 178). <b>V</b> 's additional locality in the district of Berati (at 550 m) likely based on a misidentification. <b>B</b> 's result supersedes <b>V</b> 's.                                                                        |

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Table 1 (continued from previous page)

| Taxon / Map<br>(in alphabetical order)                                | Vangjeli 2017                                                                                                                                                                | Barina & al. 2017                                                                                                                                    | Reviewer's comments                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Potentilla recta</i> ,<br>incl. <i>P. hirta</i> , <i>P. pedata</i> | 3 separate dot maps for 3 taxa.                                                                                                                                              | 1 map for <i>P. recta</i> , with <i>P. hirta</i> and <i>P. pedata</i> merely mentioned in the caption.                                               | <b>V</b> 's more differentiated result supersedes <b>B</b> 's (correct determination of mapped populations presupposed).                                                                                                                                                                                                                                                                                                                          |
| <i>Potentilla sterilis</i>                                            | 5 inland localities mapped at 1300–1900 m.                                                                                                                                   | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.                                                                             | Reported for Albania, illustrated and keyed-out (against <i>P. micrantha</i> ) by Pils (2016), corroborating <b>V</b> 's result; <b>B</b> 's doubts (definitely erroneous, or merely not seen by him?) remain unsubstantiated so far.                                                                                                                                                                                                             |
| <i>Salix pentandra</i>                                                | Mapped with a single coastal dot.                                                                                                                                            | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.                                                                             | Mapped by Jalas & Suominen (1976: 13) along the entire coast and inland along the border to Macedonia, corroborated (though weakly) by <b>V</b> 's map; <b>B</b> 's doubts remaining unexplained so far.                                                                                                                                                                                                                                          |
| <i>Salix reticulata</i>                                               | 2 dots in NW part (district of Kukës).                                                                                                                                       | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.                                                                             | Chorological information of Jalas & Suominen (1976: 17) corroborated by <b>V</b> , while suppressed by <b>B</b> ; decision on distribution pending so far, requiring additional field work.                                                                                                                                                                                                                                                       |
| <i>Salix serpyllifolia</i>                                            | Given for the northernmost part (district of Malësi e Madhe, up to 1900 m), but misplaced map contradicts caption (i.e. map of <i>Salix reticulata</i> is wrongly repeated). | Not mapped, listed in Appendix 4 as erroneously reported or unconfirmed.                                                                             | Given for Albania in Hayek (1924: 87); excluded from Albania by Jalas & Suominen (1976: 19, i.e. confined to the Alps and Dinarides as far south as Montenegro, hence extension of total range into northernmost Albania is not unlikely!). Hayek corroborated by <b>V</b> , Jalas & Suominen corroborated by <b>B</b> – <i>in dubio pro (utroque) reo</i> . Unsolved case requiring additional, critical field work.                             |
| <i>Salvinia natans</i>                                                | Mapped at Lake Shkodra (and scattered elsewhere).                                                                                                                            | Mapped at Lake Prespa (and scattered elsewhere).                                                                                                     | Accordingly amalgamating map contents recommendable.                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Selaginella denticulata</i> ,<br><i>S. selaginoides</i>            | Maps very locality-deficient; captions incorrect (obviously inverted).                                                                                                       | Maps feasible with respect to frequency and habitat preference.                                                                                      | <b>B</b> 's results supersedes <b>V</b> 's.                                                                                                                                                                                                                                                                                                                                                                                                       |
| <i>Viola gracilis</i>                                                 | 8 dots (4 in N and 4 in S Albania), with <i>V. velutina</i> given in synonymy (based on (Tutin & al. 1968: 279, 455).                                                        | 6 solid dots in N Albania and 5 open circles (as not confirmed) in C and S Albania. The name <i>V. velutina</i> is absent from Appendices and Index. | Two phantom maps: taxon endemic to NW Anatolia, the name widely misapplied to several taxa of the Balkan Peninsula (Erben 1985; Euro+Med 2006+). Identity of the mapped taxon/taxa and distribution in Albania unsettled so far. Populations in SE Albania may refer to <i>V. velutina</i> , but substantiation by verified vouchers is needed (the species, known from adjacent SW Macedonia and NW Greece, may well cross the Albanian border). |

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Table 1 (continued from previous page)

| Taxon / Map<br>(in alphabetical order)                      | Vangjeli 2017                                                                                      | Barina & al. 2017                                                                                                                                                                                                                                    | Reviewer's comments                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Viola heterophylla</i> Bertol.                           | Not mapped; name not indexed or mentioned in synonymy.                                             | Mapped with 3 open circles (as not confirmed). Appendix 1 (p. 456) gives the synonymy “ <i>V. bertolonii</i> = <i>V. epirota</i> ” (i.e. the misapplication of the former name to the taxon correctly known by the latter).                          | A phantom map: <i>V. bertolonii</i> Pio (the valid name for <i>V. heterophylla</i> Bertol. 1810, a later homonym of <i>V. heterophylla</i> (Vent.) Poir. 1808, the latter described from tropical Asia and currently a synonym of <i>Hybanthus enneaspermus</i> (L.) F. Muell.) is absent from Albania but endemic to N Italy (Pignatti 1982: 114; Bartolucci & al. 2018: 224). <b>B</b> 's Albanian localities may refer, at least in part, to <i>V. epirota</i> . |
| <i>Viola magellensis</i>                                    | 8 localities, with the name <i>V. albanica</i> given in synonymy (based on Tutin & al. 1968: 276). | Map on p. 443 with 3 localities, with <i>V. albanica</i> given in synonymy (synonymy repeated in Appendix 1, p. 456); however, taxon mapped twice, also under <i>V. albanica</i> as an accepted name (p. 441) with 2 open circles (= not confirmed). | <i>V. magellensis</i> is absent from Albania but endemic to C Italy (Pignatti 1982: 109; Bartolucci & al. 2018: 224), in SE Albania and NW Greece replaced by <i>V. albanica</i> . Alleged conspecificity (Tutin & al. 1968: 276) has been refuted by Erben (1985: 411). Present distribution of the latter in Albania unsettled so far.                                                                                                                            |
| [List open to fellow users of both atlases for completion.] | [ <b>V</b> 's maps not necessarily of incomplete or outdated information contents.]                | [ <b>B</b> 's maps not necessarily exhibiting final state of floristic knowledge.]                                                                                                                                                                   | [Mutual, constructive calibration of both works with Euro+Med PlantBase (Euro+Med 2006+) and comparable basic sources (e.g. Pils 2016) is strongly recommended.]                                                                                                                                                                                                                                                                                                    |

sources explained in the introductory part. But this is just a prejudice that a reader unfamiliar to the Balkan flora is virtually unable to rectify. Seemingly disparate contents of compared dot maps of both atlases may, after critical revision and elimination of mistakes, simply add up to a more complete distribution matrix in the investigated territory. This also includes estimates of altitudinal range. Comparison of both mappings may anyway help to decide on records in need of confirmation/rejection or defining status or degree of naturalization of ambiguous taxa.

### Illustrations

**B**'s concept of a pure collection of distribution maps leaves his atlas without any plant illustrations, whereas in **V** a space-consuming colour photograph is connected to every distribution map. That is why **V**'s work is necessarily expected to consist of at least three volumes after completion. The basic idea of **V** to produce a pictorial flora and a distribution atlas in one sweep is not bad and, with educational needs in contemporary Albania in mind, may help to get young natural history students and field botanists sustainably interested in the matter. But for this, the pictures should be of excellent quality in terms of recognizable characters or habit of the illustrated taxon which, alas, is not the case for a majority of the included photos. Many of them are out of focus, often unaesthetically rotated from the portrait format to the landscape format or even upside-down (*Coronilla varia*, p. 624), with a "fade-out" effect near the edge on one, two, three or four sides or, worse, distorted to fit into the available printing space with the consequence that ball-like fruits appear oval and rotate flowers become somewhat zygomorphic. What happened to Koeltz, the famous natural history publisher, to allow such poor quality to leave his publishing house? Was **V** perhaps completely left without copy-editing (also frequent typos in the text point towards this conjecture)? However, some of the pictures are simply wrong, and this lies in the responsibility of the author. The picture of *Amaranthus* "graecizans" (**V**: 123) clearly exhibits the narrow white margin that is typical for the leaves of *A. blitoides*. An unidentifiable broad-leaved, few-flowered member of the *Lamiales* is captioned as *Polygonum longipes*, a habitually completely different species characterized by small leaves 8–11 × 3–4 mm and flower-clusters in long, terminal and lateral spikes up to 10 cm long (Snogerup & Snogerup 1997: 82). The picture accompanying the caption and map of *Alyssum corymbosum* (= *Aurinia corymbosa*) shows a *Barbarea* species that is copied from a misidentified, alleged Pyrenean plant, offered under the header "*Alyssum corymbosum* Yellow Flower Spikes in French Spring" by a French commercial gardening portal in the internet (<http://www.imageflora.com/image/alyssum-corymbosum-yellow-flower-spikes-in-french-spring1/>); *A. corymbosa* is, in fact, absent from France

and the Pyrenees (see Euro+Med 2006+). *Clypeola jonthlaspi* (**V**: 349) is illustrated with a close-up of mislabelled *Biscutella* fruits from Sicily, likewise available online (<http://www.meditflora.com/flora/clypeola.htm>). The image associated with *Lens nigricans* does not show that species but, at a guess, fruiting *Lathyrus niger* (**V**: 545). The illustrations of *Halocnemum strobilaceum* and *Halopeplis amplexicaulis* are interchanged, etc. There are more such cases, and the general question arises whether it is appropriate to (uncritically) use images from the internet without citing the source or caring for copyright conditions.

### Appendices and Indices

**V** provides a terminal *Latin index of species and families*, in which accepted names are given in bold and synonyms in Roman script. However, this seems to be inconsistent with the text, at least in some cases, as was found randomly in *Chenopodium* vs. *Oxybasis*. In **V**, p. 916, *Oxybasis urbica* (L.) S. Fuentes & al. is indexed as an accepted taxon printed in bold, but in the text (**V**: 131) *Chenopodium urbicum* L. is accepted and *Oxybasis urbica* given as a synonym. There are more inconsistencies in that a couple of family names are missing (contrary to the header of **V**'s index), viz. *Berberidaceae*, *Chenopodiaceae*, *Crassulaceae*, *Linaceae*, *Malvaceae* and *Onagraceae*, while the respective genera are indexed. **B** offers an *Index* [sic], which contains accepted binomials without authorities connected to the page number of the corresponding distribution map, but without synonyms or accepted but unmapped taxa. The latter two categories are gathered in three independent Appendices, of which Appendix 1 contains all synonyms (with author designations) cross-referenced to mapped taxa by an arrow (i.e. synonym to the left of the arrow and accepted name of mapped taxon to the right). Nomenclatural authorities of mapped taxa are thus confined to the captions of the maps in the main part of the atlas. Appendix 2 enumerates *Casual species and remnants of cultivation* and Appendix 3 enumerates *Species, known only in cultivation*, both with nomenclatural authorities. Very important is Appendix 4 on *Erroneously reported and unconfirmed taxa*. Unfortunately, these groups of plants are not differently indicated, so that the user does not get the crucial information whether a taxon is definitely excluded from the flora of Albania or accepted as belonging to the flora, pending contemporary field work for a final decision on its status. Selected entries of Appendix 4 are even mapped, but the criterion for this is not evident. What **B** achieves with respect to streamlining Albanian mountain toponyms (see above) **V** does with his *Albanian Index of species and families* (**V**: 877–895), i.e. an extensive compilation of plant names in Albanian, a work of merit, which should definitely be incorporated into the Euro+Med PlantBase, with full credit to **V**'s atlas.

## Taxonomy and nomenclature

The taxonomic circumscription of families and genera in both works are partly divergent, but this, of course, does not affect the distribution of taxa in the investigated territory. **V** follows the taxonomic concept of *Flora europaea* (Tutin & al. loc. cit.) while **B** obviously follows APG III (2009). The overlap with influential contemporary databases such as Euro+Med (2006+) is inconsistent with respect to taxonomic circumscriptions. **B**, for instance, includes *Chenopodium* L. in *Amaranthaceae* (following APG III), **V** keeps *Chenopodiaceae* as a family of its own (following *Flora europaea*), the latter in concordance with the Euro+Med PlantBase, which itself relies, however, on more recent findings by Hernández-Ledesma & al. (2015) in accepting *Blitum* L., *Chenopodiastrium* S. Fuentes & al., *Dysphania* R. Br., *Lipandra* Moq. and *Oxybasis* Kar. & Kir. as segregates from *Chenopodium*. **V** mentions these genera in synonymy, **B** does not. A comment on “*Rhinanthus mediterraneus* (Sterneck) Adamović” (map in **B**: 336) should be given here as a (random) hint for the need towards further clarification of taxonomic and nomenclatural details in both works. *Rhinanthus mediterraneus* (Sterneck) Sennen 1909 antedates *R. mediterraneus* (Sterneck) Adamović 1913. It is nothing but the montane ecotype of *R. pumilus* (Sterneck) Pau 1909 (which antedates *R. pumilus* (Sterneck) Soldano 1986; see Dimopoulos & al. 2016: 345; Bartolucci 2018: 258). Despite its beloved epithet, *Cistus albanicus* Heywood 1968 is antedated by the conspecific *C. sintenisii* Litard. 1936 (see Authier 2014: 102 and references therein). From both atlases with their thousands of taxa many minutiae like this could be given, but here is certainly not the place to deal with all of them. Rather, it should be mentioned that in **B** three new names and combinations are published, which make **B**’s atlas a primary nomenclatural source:

*Chamaecytisus lasiosemius* (Boiss.) Pifkó, Distrib. Atlas Vasc. Pl. Albania: 466. 2017.

*Sedum album* subsp. *serpentini* (Janch.) Barina, Distrib. Atlas Vasc. Pl. Albania: 466. 2017.

*Tanacetum albanicum* (Markgr.) Barina, Distrib. Atlas Vasc. Pl. Albania: 466. 2017.

Both works contain a wealth of deviating, competing author citations, either differently abbreviated or unabbreviated, with or without initials. Evident misprints cannot be enumerated here *in extenso* (such as “Brnm.” vs. Bornm., “Duchense” vs. Duchesne, “Fenzlin Unger” vs. Fenzl in Unger, “Feryn” vs. Freyn, “Heimel” vs. Heimerl, “Pallich” vs. Pollich, “Tich.” vs. Rich., “Wickitr.” vs. Wickstr., etc.). Had the text been well proof-read, a word-processing error such as “ChevAll.”, “PAll.”, “P.W.BAll.” (derived from an action on All. = Allioni) would have been detected and corrected before printing. In the text, appendices and indices of both atlases the authorship of Ignaz Dörfler (1866–1950, see Vogt & al. 2018) is given

in at least six different versions, namely “Doerfler”, “Döerfler”, “Döerfler”, “Dörfler”, “Doerfl.”, and Dörfl. (the last one as the standard to be accepted). One could call this a conglomerate of mere misprints, but actually this kind of negligence, once put online, may have a harmful effect on author-based taxon searches in databases. A “data mining” in **V**’s *Latin index of species and families* (pp. 896–929) and **B**’s *Appendix 1: Synonyms and included taxa* (pp. 447–456) reveals too much carelessness with respect to standardization of author citations based on the online version of Brummitt & Powell (1992), i.e. the International Plant Names Index (“IPNI”; <http://www.ipni.org/ipni/authorsearchpage.do>). As a consequence, the five-point message to the corresponding authors and their teams must be at least, and just as a limited sample, as follows:

1. Add a terminating full stop or necessary diacritical signs, respectively, in: Adamović, Bertol., Boenn., Čelak., Decne., Hook., Horvatić, Lilj., Kostel., Nyár., Parl., Retz., Rich., Rothm., Salzm., Schult., Šilić, Soják, Sucksd., Thell., Velen., Willd.

2. Remove the superfluous terminating full stop in: Ball, Beck, Bosc, Bubani, Chaix, Crantz, Freyn, Fritsch, Fuss, Gay, Grimm, Heimerl, Hill, Host, Koch, Link, Moench, Nyman, Opiz, Post, Presl, Reichard, Roth, Schur, Spach, Tausch, Vest, Wulfen.

3. Use consistently the *unabbreviated*, partly initial(s)-augmented standard form in: Alston & Sandwith, Ambrosi, B.Baumann & H.Baumann, Besser, Borbás, Britton, C.Presl, Crantz, Curtis, Degen, Devillers, Dunal, E.P.Perrier & Sonjeon, F.W.Schmidt, Formánek, Grecescu, Greuter, H.Baumann, Heywood, H.R.Reinhard, H.Wolff, Halácsy, Hayek, J.P.Bergeret, K.Koch, Klotzsch & Garcke, Koeler, Kümmerle, M.Hirth & H.Spaeth, Moris & Delponte, Mosyakin & Clemants, Murray, Nowacki, O.E.Schulz, O.Lang, P. Beauv., P.H.Davis, Pančić, Pollini, Qosja, Rochel, Ronniger, Ruedi Peter, Sadler, Sartori, Schrank, Sieber, Siebold, Spruner, Steven, Stokes, Ujhelyi, W.D.J.Koch, W.L.Bray, Wulfen, Zabel, Zimmer. Note that the omission or inclusion of a space after initials is a matter of editorial style.

4. Use consistently the *abbreviated* standard form in: A.Kern., András., Arcang., Asch. & Graebn., Bertol., Borkh., C.Chr., Calest., Chaub., Chmel. C.K.Schneid., Coult., Decne., Desf., Devillers-Tersch., Dörfl., Dumort., F.K.Mey., Fisch., Forssk., Fr., Gaertn., Griseb., Hall.f., H.Fleischm., Heuff., Huds., Janch., Jáv., Kalop., Kitan., Krock., Lam., L.f., Ledeb., Loisel., M.Bieb., Markgr., Michx., Mill., Neck., Papar., P.Beauv., Petitm., Rchb.f., Roem., Salisb., Saut., Schischk., Schreb., S.G.Gmel., Sol., Soy.-Will., Spreng., Sw., Szyszył., Ten., Veill., Velen., Vis., Wahlenb., Waldst. & Kit., W.H.Wigg., Wimm., Zahlbr.

5. Delete the designation “Sibth. & Sm.” and replace it with Sm. (James Edward Smith is the effective nomenclatural author; see Smith 1806: title page).

## Conclusion

The scientific community appreciates with sympathy the two new atlases on the distribution of vascular plants in Albania. They belong to a type of basic literature that will be necessarily consulted and cited by contemporary and future field botanists, plant geographers, nature conservationists, database administrators and enthusiasts on the flora of this extraordinary country. Both works have their merits and shortcomings, which make their parallel use inevitable. Divergence in substance may trigger future floristic research, which is needed to approach a sound knowledge of plant diversity in Albania. To gain momentum for this, the fruitful and unconditional collaboration of the above-mentioned corresponding authors Zoltán Barina, Gerhard Pils and Jani Vangjeli (and others to come) and their teams of informants, collaborators and co-authors is strongly recommended, and expected, by the scientific public.

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